

Docket No. 2929-0148P
Appl. No. 09/873,698
Art Unit: 3683
Ref. No. H0001347
Amendment dated October 30, 2003
Reply to Office Action of July 30, 2003
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REMARKS

Applicants appreciate the Examiner's thorough consideration provided to the present application. Applicants request the courtesies of a personal interview with the Examiner to discuss this application in greater detail and to expedite the prosecution of the present application. Applicants request that the Examiner contact the undersigned via telephone in the Washington, DC area to arrange a personal interview with Applicants representative upon receipt of this Request for Reconsideration.

Claims 1-9 and 18-20 are currently pending in the instant application. Claims 1 and 18 are independent. Reconsideration of the present application is earnestly solicited.

Claim Rejections Under 35 U.S.C. § 102

Claims 1 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by FR 2693246 to Berndt et al. This rejection is respectfully traversed.

Applicants appreciate the Examiner's providing a copy of the English Translation of French Patent Document No. FR-2693246. Without conceding

the accuracy of this translation, but merely to timely advance the prosecution of the present application, the following information is submitted for the Examiner's consideration.

Applicants respectfully submit that the prior art of record fails to teach or suggest each and every element of the unique combination of elements of the claimed invention. Further, Applicants submit that the Examiner's broad interpretation of the friction coating (labeled as element 5 in FR-269246) is unreasonable and/or not consistent with any art recognized definition of a friction coating and/or disk. Accordingly, these rejections should be withdrawn.

Applicants submit that the friction coating (element 5 in Berndt et al.) cannot reasonably be construed as a friction lining disk. Applicants appreciate that the Examiner is merely attempting to interpret the prior art of record as broadly as possible. However, Applicants submit that the Examiner's interpretation is improper, specifically since the art recognized term and/or the "definition" of a "disk" would clearly not support the interpretation advanced by the Examiner in the Office Action. Further, the reference the Examiner is referring to clearly contradicts the alleged definition of the term "disk"

advanced by the Examiner. If it is the Examiner's position that a friction coating by itself can be interpreted as a "disk," Applicants respectfully request that the Examiner provide actual evidence from the prior art of record that supports this broad definition.

For example, Applicants respectfully submit that there are thousands of U.S. Patents that have been issued that include the terms brake "disk" or "disc." Applicants request that the Examiner provide examples of either of these terms being interpreted in a manner that supports the Examiner's position that the "coatings 5 of FIGs. 3A, 3 of Berndt et al. are wear surfaces and are friction lining disks as broadly recited. . .the coatings 5 constitute the "first" and "second" friction lining disks of lines 4 and 8." (see Page 2 of the Office Action dated July 30, 2003). Accordingly, this rejection should be withdrawn.

Applicants request that the Examiner review section 608.01(o) of the MPEP for a brief description of a proper basis for claim terminology in a written description. As stated under this section, the "meaning of every term used in any of the claims should be apparent from the descriptive portion of the specification with clear disclosure as to its import, and in mechanical cases, it

should be identified in the descriptive portion of the specification by reference to the drawing, designating the part or parts therein to which the term applies. . . .No term may be given a meaning repugnant to the usual meaning of the term.” (MPEP § 608.01(o)) Applicants submit that the Examiner is ignoring the context of the term “disk” within Applicants own specification and/or applying a definition to the term “disk” that is repugnant to the usual meaning of the term.

In Applicants specification, the Examiner is invited to review Applicants use of the term disc or disk. The Examiner will appreciate from a review of paragraphs 0001 through 0016 of the present application that the friction lining disks of the present application are specifically described as being refurbishable wear elements, i.e., that can be replaced with replacement friction lining disks without having to discard the more expensive annular structural core. The Examiner is further reminded that Applicants are not required or even requested to provide a term-by-term definition of every term appearing in the specification. In addition, FIGs. 2-4 provide additional assistance to the Examiner when attempting to “define” what is meant by the term “disk” (element 30) shown in these drawings. Finally, the term coating is

utilized in Applicants own specification, e.g., see paragraph 0048, in contrast to and conjunction with the term friction lining disk.

Applicants submit that one of ordinary skill in the art would clearly not use the term “disk” to describe a friction coating. For example, in the Berndt et al. reference relied upon by the Examiner, the term “disc” or “disk” appears numerous times throughout this reference. In addition, the alleged “frictional lining disk” of Berndt is clearly defined as a friction coating 5. Accordingly, the term “disk” is never utilized to describe the friction coating (element 5); in fact, the reference clearly distinguishes the friction coating as NOT being a disk.

With respect to claim 1, Berndt et al. fails to teach or suggest the combination of elements of the claimed invention, including the limitation(s) of “a friction disk for a brake assembly comprising an annular structural core having *at least one sinusoidally-shaped mounting surface*; and *at least one frictional lining disk having a sinusoidally-shaped mounting surface* and a relatively, flat wear surface, *said mounting surface of each frictional lining disk matingly engaging said mounting surface of said structural core.*” (emphasis added)

With respect to claim 18, Berndt et al. fails to teach or suggest the combination of elements of the claimed invention, including the limitation(s) of “a friction disk for a brake assembly comprising. . . *a first frictional lining disk having a sinusoidally-shaped mounting surface* and a relatively, flat wear surface, said mounting surface of said first frictional lining disk *matingly and directly engaging said first mounting surface of said structural core*; and *a second frictional lining disk having a sinusoidally-shaped mounting surface* and a relatively, flat wear surface, *said mounting surface of said second frictional lining disk matingly and directly engaging said second mounting surface of said structural core.*” (emphasis added) Accordingly, these rejections should be withdrawn.

The Examiner has referred to a low cost, lightweight bicycle disk as an alleged basis for rejecting the friction disk for a brake assembly of the claimed invention. In addition, the Examiner has alleged that Berndt somehow teaches or suggests first, or even second friction lining “elements” (the Examiner has relied upon the “friction coating 5” of Berndt as the alleged friction lining elements). This interpretation is respectfully traversed.

Specifically, the bicycle brake disk of Berndt clearly does not include friction lining elements as alleged by the Examiner. Instead, a friction coating, e.g., sprayed or applied by galvanization, provides a wear surface for the bicycle disk of Berndt. The alleged sinusoidal surfaces of Berndt refer to the corrugated surface of the disk (element 1 shown in FIG. 3A), but the coating (element 5) does not have any sinusoidal mounting surface since it is merely a friction coating, e.g., not a friction lining disk, that is sprayed or applied.

Without conceding the propriety of the Examiner's rejection, but merely to timely advance the prosecution of the present application, Applicants have amended the term friction lining element to friction lining disk to clarify the invention for the benefit of the Examiner. The Examiner will note that in the present application, the friction lining disks 30 are purposefully manufactured to be utilized with a reusable structural core, e.g., element 40 in FIG. 4. Accordingly, the friction lining disks, i.e., actual elements, plates or disks, may be attached to the structural core, removed, replaced and/or even refurbished. Although these disks 30 may include a coating, the friction lining disks of the claimed invention are clearly different than the friction coating (element 5) of

the Berndt reference that is solely used to supply the wear surface of the brake disk (element 1).

The claimed invention provides a secure, reliable way of mounting replaceable frictional elements that is not particularly labor intensive and with fewer elements than those shown in the prior art of record. Since the frictional elements and the annular structural core are specifically shaped to mate with one another, no intermediate layer(s) is/are required therebetween. In light of the numerous patentable distinctions between the claimed invention and the prior art of record, this rejection should be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 2, 5, 7-8 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over FR 2693246 (Berndt et al.) in view of Pigford (U.S. Patent No. 4,982,818). Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over FR 2693246 (Berndt et al.) in view of Cook et al. (U.S. Patent No. 3,800,392). Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Berndt et al. in view of Pigford, and further in view of Hill et al. (U.S. Patent No. 4,011,055). These rejections are respectfully traversed.

Applicants respectfully submit that the prior art of record fails to teach or suggest each and every element of the combination of elements of the claimed invention. As described in greater detail hereinabove, Berndt et al. fails to teach or suggest each and every element of even the independent claims. The claimed invention provides a unique brake assembly that includes a uniquely shaped structural core and removable friction lining disk(s) not shown in the prior art of record. Accordingly, the rejections based upon the Berndt et al. reference are improper and should be withdrawn.

Although the Cook et al. reference is directed toward a brake disk assembly having carbon or graphite removable wear faces, this brake assembly is unrelated to the bicycle disk of Berndt et al. Further, the Examiner has not identified any reason as to why one of ordinary skill in the art would modify the bicycle disk of Berndt et al., e.g., having only a friction coating (element 5), to include removable wear disks. Accordingly, this rejection should be withdrawn.

With respect to the Pigford reference, Applicants submit that the Examiner has not identified any reason why one of ordinary skill in the art would add carbon-carbon core and/or friction lining disks comprised of carbon

to the bicycle disk of Berndt et al. Further, since Berndt et al. does not even rely upon friction lining disks, but instead relies solely upon a friction coating, one of ordinary skill in the art would not have been motivated to even attempt to modify the Berndt et al. brake disk to include the unique frictional lining disks of the claimed invention.

In accordance with the above discussion of the patents relied upon by the Examiner, Applicants respectfully submit that these documents, either in combination together or standing alone, fail to teach or suggest the invention as is set forth by the claims of the instant application.

Accordingly, reconsideration and withdrawal of the claim rejection are respectfully requested. Moreover, the Applicants respectfully submit that the instant application is in a condition for allowance.

As to the dependent claims, Applicants respectfully submit that these claims are allowable due to their dependence upon an allowable independent claim, as well as for additional limitations provided by these claims.

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CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state-of-the-art, no further comments are necessary with respect thereto.

In the event there are any matters remaining in this application, the Examiner is invited to contact Matthew T. Shanley, Registration No. 47,074 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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